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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,538	02/15/2001	David E. Dana	1588A1	4918

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05/06/2003

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EXAMINER

SALVATORE, LYNDIA

ART UNIT

PAPER NUMBER

1771

DATE MAILED: 05/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/783,538

Applicant(s)

DANA ET AL.

Examiner

Lynda M Salvatore

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AS-11

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) 46-49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Applicant's amendment's and accompanying remarks, Paper No. 10, have been entered. Currently, claims 1-49 are pending and claims 46-49 are withdrawn as non-elected. Claims 1,20,21,28,29,39,45 and 46 have been amended as requested. Applicant's amendment to claim 39 is sufficient to overcome the claim objection set forth in section 8 of the last Office Action. Applicant's arguments are found to overcome the 35 U.S.C 112nd paragraph rejections set forth in sections 10-13 of the last Office Action. Accordingly, these rejections are withdrawn. Despite this advance, Applicant's amendments are not found to patently distinguish the claims over the prior art and Applicant's arguments are not found persuasive of patentability for reasons set forth herein below.

Election/Restrictions

2. Applicant's election with traverse of Group I, claims 1-45, in Paper No. 10 is acknowledged. The traversal is on the ground(s) that the search examining the article and method would not present a serious burden to the Examiner. This is not found persuasive because the search required for the article of Group I, claims 1-45 is not coextensive with the search necessary for the method Group II, claims 46-49. To that end, it is the position of the Examiner that searching such separate class and subclass groups (i.e., method and article) would unduly burden the Examiner.

The requirement is still deemed proper and is therefore made FINAL.

Specification

3. Applicant's amendment to the title of the specification is not sufficient to overcome the objection set forth in section 7 of the last Office Action. Specifically, the title of the invention includes an apparatus for forming apertures in electronic supports and presently there are no apparatus claims.

Claim Rejections - 35 USC § 102/103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 1-3, 5-37, and 39-45 stand rejected under 35 U.S.C. 102 (a) as being anticipated by or in the alternative under 103(a) as being obvious over Novich et al., WO 99/44960.

The Applicant has amended claims 1,20,21,28,29, and 45 to include the limitation of *"wherein the at least one matrix material is chosen from ceramics, glass ceramics, and macromolecules composed of long chains of atoms that are linked together and that can become entangled in solution or the solid state"*, to further define the matrix material. The Applicant asserts that the sizing material of Novich et al, which contains all of the ingredients of the presently claimed matrix material are not analogous materials (Applicants response, Page 12). Furthermore, the Applicant argues that Novich et al., teaches the addition of a matrix material, which does not contain inorganic filler materials (Applicant's response, Page 12). Applicant contends that sizing composition is applied to individual fibers whereas matrix materials are applied subsequent the addition of any sizing composition and functions to impregnate the woven reinforcing fabrics (Applicant's response, Page 13).

In response to Applicant's arguments that the sizing material of Novich et al., and the presently claimed matrix are not analogous because the sizing composition is applied to individual fibers before the reinforcing woven fabric is impregnated with the addition of a matrix material. This is not persuasive on the grounds that the sizing material of Novich et al., meets each and every chemical limitation of the presently claimed matrix material and that the Applicant is not claiming a matrix material which functions to impregnate the reinforcing fabric. With regard to the Applicant's matrix material limitations, the composition comprises solid lubricant particles, an epoxy-functional organo silane coupling agent, and thermoplastic/polymeric film forming materials such as epoxy, vinyl esters, polyesters, and polyamides. To that end, a composition having thermoplastic/polymeric film forming material would meet the limitation of a macromolecule. Claims 1,20,21,28,29, and 45 recite "at least one matrix material *in contact with* at least a portion of the at least one reinforcement material" It is the position of the Examiner that "in contact with" does not equate to impregnating. In other words, merely using the term "matrix" in conjunction with "in contact with" does not imply that the matrix material impregnates the reinforcing fabric. Furthermore, the Applicant fails to set forth the amount of matrix material used (i.e., thickness, concentration, or amount), that the matrix material is in addition to a size coating, or that the matrix material functions to impregnate the fabric to form a three-dimensional structure or that it is a matrix for the fabric and not some other material such as the filler. Without such limitations, the claim fails to distinguish from a thin coating of sizing. Thus, the Examiner maintains that the sizing of Novich et al., functions in the same capacity within the scope of the as the presently claimed "matrix" material.

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With regard to Applicant's new functional limitation, the phrase "*that can become entangled in solution or the solid state*", effectively constitutes a "capable of" limitation. It has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138

With respect to the rejection of claims 3,22,32, the Applicant argues that Novich et al., fails to teach that the sizing coating is resin compatible (Applicant's response, Page 16). It is noted that the features upon which applicant relies (i.e., resin compatible) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper implied reasoning, it is the position of the Examiner that since Novich et al., does not teach removing the sizing, it would have been clear to one within the level of ordinary skill at the time the claimed invention was made, that the woven glass fiber reinforcement is non-greased (Applicant's response, Page 17). Furthermore, the Examiner asserts that the absence of a specific teaching to remove the size coating effectively suggests that the woven glass fiber reinforcement is and must be non-greased.

With respect to the inherency rejections of claims 11,12, 24,33,34,36 and 37, the Applicant argues that the Examiner admits that Novich et al., fails to teach the physical property limitations set forth in said claims. In response, a *prima facie* case of either anticipation or obviousness has been established when the prior art references teaches products that are

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substantially identical in structure or composition to that of the claimed invention. To that end, since Novich et al., meets each and every chemical and structural requirement set forth in the claims, then it must meet the physical property limitations recited that depend from said requirements. The Applicant is invited to read MPEP 2112-2112.01 for further explanation of how the inherency arguments of *In re Fitzgerald* and *In re Best* are applied in the instance.

Claim Rejections - 35 USC § 103

6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. Claim 4 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Novich et al., WO 99/44960 as applied to claim 1 above, and further in view of Sproull, US 4,542,106

The Applicant argues that there is no motivation or suggestions to modify and/or combine references in order to recreate the Applicant's invention (Applicant's response, Page 19). In response, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, Sproull, teaches a glass composition comprising only trace amounts of Fe₂O₃. Sproull, further teaches that Fe₂O₃ is usually introduced as an impurity to the batch materials, and if present it is usually in the amounts of .2-.3 weight percent of the composition

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(Column 3, 24-29). Sproull teaches that the glass fibers have excellent liquidus and viscosity properties rendering it ideal for the formation of glass fibers while eliminating the need for pollutants such as boron and fluorine (Column 2, 53-60). Moreover, Sproull teaches that the fibers formed from the novel composition possess electrical and enhanced tensile strength properties such that the fibers can readily used as replacement for the industry standard "E" and "621" glasses (Column 2, 60-65).

Therefore, motivated to have glass fibers with excellent tensile strength and electrical properties it would have been obvious to one having ordinary in the art at the time the invention was made to use the novel glass compositions taught by Sproull, in the electrical support of Novich et al.

8. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Novich et al., WO 99/44960 as applied to claim 30 above, and further in view Satoshi, Japanese Patent Abstract, Publication No. 07-276563.

The Applicant argues that there is no motivation or suggestions to modify an/or combine references in order to recreate the Applicant's invention (Applicant's response, Page 19). In response, the Examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

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In this case, the patent abstract discloses a substrate sheet impregnated with a thermosetting resin comprising inorganic filler and a chelating agent to prevent a surface coated with the resin composition from keeping its stickiness during production. Therefore, motivated to provide a sizing composition having neutralized adhesive properties it would have been obvious to use a chelating agent as taught by Satoshi in the sizing composition of Novich et al.

Conclusion

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

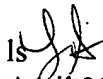
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lynda M Salvatore whose telephone number is 703-305-4070. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 703-308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Is 
April 30, 2003


TERREL MORRIS
SUPERVISORY PATENT EXAMINER
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